

SEQUENCE LISTING

<110: Puiz-Opazo, Nelson (120) METHOD OF ASSAYING MODULATORS OF HYPERTENSION -(13m) 50047, GCE003 <11400 US 10,046,722</pre> -11411-1001-01-07 -.150 - US 09/+53,030 1151 10000-09-01 <150 - UC 60/151,011</pre> +.151 + 1:99-09-01 -(1600 + 4)<:170 - FastSE2 for Windows Version 4.0</pre> +1210 + 1 $\pm 211 \pm 2636$ 3212 - EUA #213 - Fattus norvegicus ×22.0 × +:2.01 - CDS $-.232 \cdot (238) \dots (3309)$ -(400 + 1)agageetegg eggagagg eggaeaegtg geageggegg eggeagegge ageageageg 60 gougeagoag eggoggeste ggteegggge geoggeegte etecetettt eeteeggegg 120 cadecotage trougector eggeteecce ggotecacte teccageegg gagetgetet 180 stocketts tagtetocag scacaggade eggogogggg deegcagege egscade atg 240 Met 1 ggg aag ggg oft gga oga gad aag tat gag ood gda got gta toa gaa Sly Lys Gly Val Gly Arg Asp Lys Tyr Glu Pro Ala Ala Val Ser Glu 336 cat ggg gar say aag agc aag aag gcg aag aag gaa agg gac atg gac His Gly Asp Lys Lys Ser Lys Lys Ala Lys Lys Glu Arg Asp Met Asp gau ate and may gan gtg tot atg gad gad cat man ate ago otg gat Glu Leu Lys Lys Glu Val Ser Met Asp Asp His Lys Leu Ser Leu Asp 40gas etc cat egt aaa tac gga aba gat ttg age ega gge eta aca eed Glu Leu His Arg Lys Tyr Gly Thr Asp Leu Ser Arg Gly Leu Thr Pro 50 430 goa agg god got gag ato otg got ogg gat ggd dod aad god otd adg Ala Arg Ala Ala Glu Ile Leu Ala Arg Asp Gly Pro Asn Ala Leu Thr

oco Pro	ect Pro	ccc Pro	act Thr 85	act Thr	ccc Pro	gag Glu	tgg Trp	gtc Val 90	aaa Lys	ttc Phe	tgt Cys	cgg Arg	cag Gln 95	ctg Leu	tto Phe	528
ggt Gly	gg: Gly	tt: Pho 100	tcc Ser	atg Met	tta Leu	ctg Leu	tgg Trp 105	att Ile	gga Gly	gcc Ala	att Ile	ctt Leu 110	tgt Cys	tt: Phe	ttg Lei	576
get Ala	tat Tyr 115	gg: Gly	atc Ile	cga Arg	agt Ser	get Ala 120	aca Thr	gaa Glu	gag Glu	gaa Glu	cca Pro 125	cca Pro	aat Asn	gat Asp	gat Asp	624
ctg Leu 110	ta:: Tyr	cto Leu	Gly gaa	gtc Val	gtg Val 135	ctg Leu	tot Ser	get Ala	gt: Val	gtc Val 140	atc Ile	ata Ile	act Thr	ggs Gly	tgt Cys 145	672
tt.c Pne	tac Ser	tat Tyr	tat Tyr	caa Gln 150	gaa Glu	gca Ala	ala Lys	agc Ser	tac Ser 155	aag Lys	atc Ile	atg Met	gaa Glu	tc: Ser 160	tto Phe	720
aag Lys	aac Aan	atg Met	gtc Val 165	aat Ero	cag Gln	caa Gln	gac Ala	ctc Leu 170	gtg Val	att Ile	cga Arg	aat Asn	gga Gly 175	gag Glu	aag Lys	768
atg Met	agc Ser	atc Ile 180	aac Asn	gca Ala	gag Glu	gat Asp	gtc Val 185	gtc Val	gtt Val	ggt Gly	gat Asp	ctg Leu 190	gtg Val	gag Glu	gtg Val	815
aag Lys	gac Gly 195	GΊγ	gac Asp	cga Arg	atc Ile	cct Pro 200	gct Ala	gat Asp	ctc Leu	aga Arg	atc Ile 205	ata Ile	tct Ser	gca Ala	aat Asn	864
ggc Gly 210	tạc Cys	aag Lys	gtg Val	gat Asp	aac Asn 215	t.cc Ser	tca Ser	ctc Leu	act Thr	ggt Gly 220	GIU	tca Ser	gaa Glu	ccc	cag Gln 225	912
act Thr	cqg Arg	too Ser	cog Fro	gat Asp 130	Phe	aca Thr	aac Asn	gag Glu	aac Asn 235	r'rc	ttg Leu	gag Glu	aca Thr	agg Arg 240	aac Asn	960
att Ile	gcc Ala	tto Phe	tto Phe	Ser	acc Thr	aac Asn	tgt Cys	gtt Val 250	:SIU	ı gga	act Thr	gca Ala	agt Arg 255	.a r. A	atc Tle	1008
gtt Val	gto Val	g tac L Tyr 160	Thr	e Gly	ı gat 7 Asp	ogc Arg	ado Thr	: Val	ratg Met	g ggo : Gl;	ago Aro	g ato g Ile 270	Ald	acc Thr	c ctt Leu	1056
got Ala	. tot : :::::::::::::::::::::::::::::::::	r Gly	g atq 7 Lei	g gaa i Glu	ı gge ı Gly	230 230 230	7 Gir	g acc n Thr	coo Pro	at:	get Ala 28!	ודני ב	ı qaa ıGlu	ato Ile	gag e Glu	1104
dac His 290	: Ph	c ato e Ile	c cad e His	c ct: s Lei	ato 1116 295	Thi	g ggt	t gto y Val	g gc: L Ala	o gte a Val 301	I Pho	e Lei	1 335 1 335	g gt: 7 Val	g tot l Ser 305	1152
tto Phe	a tt	o at e Ile	t st e Le	c to u Se:	t ctq r Lei	g ato	c st e Lei	t gaq u Gli	g ta u Ty	c aco	c tg r Tr	g sto p Lei	c gaç ı Glu	g gc	t gtc a Val	1200

			310					315					320		
atc ttc Ile Phe	Leau	att Ile 325	ggt. Gly	atc Ile	atc Ile	gta Val	gcc Ala 330	aac Asn	gtg Val	dog Pro	gaa Glu	ggt Gly 335	ttg Leu		1248
gee acc Ala Thr	gtc Val 340	acg Thr	gta Val	tgt Cys	ctg Leu	acg Thr 345	ctc Leu	act Thr	gcc Ala	aag Lys	ogo Arg 350	atg Met	geg Ala	agg Arg	1296
aag aac Lys Asn 355	073	ctg Leu	ytg Val	aa r Lye	aac Asn 360	ctg Leu	gaa Glu	get Ala	gtg Val	gag Glu 365	acc Thr	ttg Leu	g]g Gly	tcc Ser	1344
aca too Thr Ser 370	add Thr	atc Ile	tigo Cys	to: Ser 375	gac Asp	aag Lys	act Thr	gga Gly	act Thr 380	atq Leu	act Thr	cag Gln	aac Asn	ogg Arg 385	1392
atg aca Met Thr	gtg Val	gct Ala	cac His 390	aty Met	tga Trp	ttt Phe	gac Asr	aat Asn 395	caa Gln	atc Ile	cat His	gaa Glu	got Ala 400	gac Asp	1440
acc aca Thr Thr	gag Glu	aat Asn 405	cag 31n	agt Ser	ggg Gly	gtc Val	toc Ser 410	ttt Ph.e	gac Asp	aag Lys	acg Thr	tca Ser 415	gcc Ala	acc Thr	1488
tgg tto Trp Phe	get Ala 420	ctg Leu	tcc Ser	aga Arg	att Ile	gct Ala 425	ggt Gly	ctc Leu	tgt Cys	aac Asn	agg Arg 430	gca Ala	gtg Val	ttt. Phe	1536
cag get Glr. Ala 435	ı Asn	caa Gln	gaa Glu	aac Asn	ctq Leu 440	cct Fio	atc Ile	ct.t Leu	aag Lys	cat Arg 445	gca Ala	gta Val	gcg Ala	gya Gly	1584
gat got Asp Ala 450	t too a S∈r	gag Glu	t cg Ser	geg Ala 455		t.t.a Leu	aag Lys	tgc Cys	atc Ile 460	gag Olu	gtc Val	tạc Cys	tgt Cys	ggc Gly 465	1632
tcc gt: Ser Val	g atg l Met	pag Glu	atg Met 470	Arg	gag Glu	aag hys	tac Tyr	acc Thr 475	L'Ys	ata Ile	gtg Vāl	gag Glu	att Ile 480	I, I ()	1680
ttc aa: Fhe As:	d too n Ser	acc Thr 485	Asn	aag Lys	tac Tyr	cag Gin	oto Leu 490	. Ser	att : Ile	cac His	aag Lys	aac Asn 495	Fro	aśc Asn	1728
gca to Ala Se	g dag r Glu 500	Pro	. aag . Lys	cac His	e ctg Leu	r ota Leu 505	ı Vai	ratg Met	g aag Lys	: Gly	gdc Ala 510	Pro	gaa Glu	agg Arg	1776
ato ot The Le 51	u Asp	oga Arç	tgo J Dys	aşt Ser	tot Ser 520	114	c ctc e Leu	d ote Let	c cac i His	178 2 317 3 440	/ FA8	g gaç s Glu	g caq n Glr	peco Pro	1834

1920

ctg gac gaa gag otg aag gac goo titt oag aat goo tac ota gag otg 1872 Leu Asp Glu Glu Leu Lys Asp Ala Phe Gln Ash Ala Tyr Leu Glu Leu 530 545

ggg ggc off gga gag cyt gtg ofa ggt the tge bac etc eft ofg bet

Gly	a:	•	C1	C	7	1 * = 3	Lou	Clv	Dho	Cue	Hic	Te:	Len	I e II	Pro	
GIY	СІУ	Leu	GIŸ	550	Ard	\а1	Leu	GIÅ	555 555	Cys	1112	Dea	neu	561		
gac Asp	gaa Glu	cag Gln	ttt Fhe 565	acc Fro	gaa Glu	ggc Gly	ttc Phe	cag Gln 570	ttt Phe	gac Asr	act Tnr	gat Asp	gaa Glu 575	gto Val	aat Asn	1763
tto Phe	ada Pro	gtg Val 58]	ga* Asp	aac Asn	oto Leu	tg: Cys	tto Phe 585	gtq Val	ggt Gly	etit Leu	atc Ile	tec Ser 590	atg Met	att Ile	gac Asp	2 126
cct Pro	cct Pro E9f	oga Arg	gct. Ala	gct Ala	gto Val	oca Pro 900	gat Asp	got. Ala	gtq Val	gga GLy	aaa Lys 605	tạc Cys	cgc Arg	agc Ser	get Ala	2064
999 617 610	att Ile	aag Lys	gte Val	atc Ile	atg Met 615	oto Val	aca Thr	gga Gly	gac Asp	cat. His 620	cca Pro	atc 11e	aca Thr	gcc Ala	aaa Lys 625	2112
god Ala	att lle	got Ala	aag Lys	499 617 630	gtg Val	agc Gly	att Ile	atc Ile	tca Ser 635	gaa Glu	ggt Gly	aac Asn	gag Glu	acc Thr 640	gtg Val	1160
gaa Glu	gac Asp	att	got Ala 645	gco	ogc	oto Leu	aac Asn	att Ile 650	oda Pro	gtg Val	aac Asn	cag Gln	gtg Val 655	aac Asn	ecc Prc	1,208
aga Arg	gat Asp	gcc Ala 660	aag Lys	gcc Ala	tgt Cys	nta Val	gta Val 665	cat His	ggc Gl;	agt Ser	gac Asp	ttg Leu 670	aag Lys	gac Asp	atg Met	1256
acc Thr	tot Ser 675	gag Glu	gag Glu	atg Leu	gat Asp	gac Asp 680	att Ile	ttg Leu	egą Arą	tac Tyr	cac His 685	acg Thr	gag Glu	att Ile	gtc Val	1304
ttt Phe 690	get. Ala	Arg	acc Thr	tct Ser	cct Pro წ95	caa Gln	cag Gln	aag Lys	ct: Leu	atc Ile 700	att Ile	gtg Val	gag Glu	ggc Gly	tgc Cys 705	. 352
cag Gln	ogg Arg	cag Gln	ggt Gly	gcc Ala 710	atc Ile	gtg Val	gst Ala	gtc Val	aca Thr 715	era aaa	gat Asp	ggt Gly	gtc Val	aat Asn 720	gac Asp	1400
tct Ser	cca Pro	gat Ala	titg Leu 725	Lys	aag Lys	gca Ala	gat Asp	att Ile 730	Gly	gtt Val	qoc Ala	atg Met	ggg Gly 735	116	gtt Val	. 448
ggc 31y	tog Ser	gat Asp 740	gtg Väl	tcc Ser	aag Lys	caa Gin	got Ala 745	Ala	gac Asp	atg Met	att	ctt Leu 750	ren	gat Asp	gac Asp	7496
aac Asn	ttt Phe 755	Ala	too Ser	atc Ile	gtg Val	act Thr 760	Gly	gta Väl	gaa Glu	. gaa Glu	. ggt Gly 765	' Arg	ctg Leu	ata Ile	ttt Phe	. 544
gat Asp 770	Asn	ttg Leu	aaş Lys	g aaa S Lys	tec Ser 775	Ile	got Ala	tac Tyr	acc Thr	c ota Leu 730	ı Thr	agt Ser	aac Asr	att i Ile	ccg Pro 785	<u> 25.42</u>

gaa Glu	atc Ile	ac: Th:	occ Pro	ttc Phe 790	ttg Leu	ata Ile	ttt Phe	att Ile	att Ile 795	gca Ala	aac Asn	att Ile	cca Pro	ctg Leu 800	ccc Pro	<u>1640</u>
ctg Leu	ggc Gly	act Th:	gta Val 805	asc Thr	atc Ile	ct: Le:	tg: Cys	att Ile 810	gac Asp	ttg Leu	ggc Gly	act Thr	gac Asp 315	atg Met	gtt Val	2688
odc Pro	gos Ala	atu Il. 82	tot Ser	ctg Leu	gcc Ala	tat Tyr	gaa 311 825	cag Glr.	gct Ala	gaa Glu	agt Ser	gac Asp 830	ato Ile	atg Met	aag Lys	2736
agg Arg	cag Gln 335	coo Pro	aga Arg	aat Asn	coc Pro	aaa Lys 845	aog Thr	gac Asp	aaa Lys	ett Leu	utg Val 545	aac Asn	gag Glu	egt Arg	otq Leu	2784
ato Ile 850	ago Ser	atı Mət	god Ala	tat Tyr	gga Gly 855	caj Gln	ato Il·:	ggt Gly	atg Met	atc Ile 860	daq Gin	gde Ala	oty Leu	gga Gly	ggc Gly 865	2832
tto Phe	tto Phe	act Thr	tat Tyr	ttt Phe 870	gtg Vai	att Iie	ctj Leu	got Ala	gag Glu 875	aac Asn	445	tto Phe	ctg Leu	000 Pro 880	ttt Phe	2880
cac His	oty Leu	tty Leu	ggc Gly 885	atc Ile	oga Ang	gag Glu	ac: Thr	tgg Trp 890	qat Asp	gac Asp	ogo Ang	tgg Trp	ato Ile 895	aat Asn	gat Asp	392€
gtg Val	gag Glu	gas Asp 900	agc Ser	tac Tyr	ggg Gly	cag Gln	cag Gln 905	tgg Trp	acc Thr	tac Tyr	gaq Glu	cag Gln 910	agg Arg	aag Lys	att Ile	2976
gtg Val	gag Glu 915	tto Phe	acc Thr	tgo Cys	cac His	acg Thr 920	gcc Ala	ttc Phe	ttt Phe	gtc Val	agt Ser 925	atc Ile	gtg Val	gta Val	gtg Val	3024
cag Gln 930	tgg Trp	gct Ala	gac Asp	ting Leu	gto Val 935	atc Ile	tgc Cys	aag Lys	acc Thr	aga Arg 940	agg Ang	aat Asn	tct Ser	gtc Val	ttc Phe 945	3072
cag Gln	cag Gln	gga Gly	atg Met	aag Lys 950	aac Asn	aag Lys	at: Ile	tta Leu	ata Ile 955	ttt Phe	GTA Eds	ctc Leu	ttt Phe	gaa Glu 960	gag Glu	3120
aca Thr	gct Ala	ctt Leu	get Ala 965	get Ala	ttc Phe	otg Leu	too Ser	tac Tyr 970	tgc Cys	oct Pro	21A 333	atg Met	ggt Gly 975	gca Ala	gco Ala	3163
ctt Leu	agg Arg	atg Met 980	tat Tyr	ese Pro	cto Leu	aaa Lys	eet Erb 985	Thr	tqq Trp	tgg Trp	tto Phe	tạt Cys gạn	Ala	ttc Fne	ccc Pro	3216
tac Tyr	tac Ser 99	Len	ctc Leu	ato Ile	tto Phe	gig Val 100	Tγr	gac Asp	gag Glu	gtg Val	ogg Arg 100	Lys	cts Leu	atc Ile	atc Ile	3254
agg Arg 101	Arg	aga Arg	cct Pro	gạc Gly	ggc Gly 101	Trp	ştg Val	gag Glu	aag Lys	gaa Glu 102	Thr	tac Tyr	tac Tyr	tag *		3309

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occaetgode tgeasgeogt ggaacattgt jedacacaet geasctaces etaccoesee 3369
tttgtgtadt toaagtottg gagotoggaa stotacootg gtaggaaago accasagoat 3429
gtggggates agasgtestg gaatgaagsa tgtagetgta atggggggeg gggggggggg 3489
tgoodgaaaa acabogtgga oggggaogab agoggggaag gtttatatgt gootttttgt 3549
ttttdthaaa aaggaaaaco tygaaagact jaaagattac gttttatato tggattttta 3609
caaa aaaga tggctattat aacggaa
\pm 1210 \pm 1
-:211 - 102?
-.212 FRT
H213 - Fattus norvegicus
(400) - 1
Met Gly Lys Gly Val Gly Arg Asp Lys Tyr Glu Prc Ala Ala Val Ser
                                     10
1
Blu His Gly Asp Lys Lys Ser Lys Lys Ala Lys Lys Glu Arg Asp Met
Asp Glu Leu Lys Lys Glu Val Ser Met Asp Asp His Lys Leu Ser Leu
                             4\,\odot
        35
Asp Glu Leu His Aig Lys Tyr Gly Thr Asp Leu Ser Arg Gly Leu Thr
                         55
                                             60
Pro Ala Arg Ala Ala Glu Ile Leu Ala Arg Asp Gly Pro Asm Ala Leu
                     7:0
                                         75
Thr Erd Pro Pro Thr Thr Ero Glu Trp Val Lys Phe Cys Arg Glm Leu
                                                          95
                85
                                     (11)
Phe Gly Gly Fhe Ser Met Leu Leu Trp Ile Gly Ala Ile Leu Cys Phe
                                                     110
                                 105
            100
Leu Ala Tyr Gly Ile Arg Ser Ala Thr Glu Glu Glu Fro Pro Asn Asp
        115
                                                 125
                             120
Asp Leu Tyr Leu Gly Val Val Leu Ser Ala Val Val Ile Ile Thr Gly
                                             140
                         135
Cys Phe Ser Tyr Tyr Gln Glu Ala Lys Ser Ser Lys Ile Met Glu Ser
                                                              160
                                         155
                    150
Phe Lys Asr. Met Val Pro Gln Gln Ala Leu Val Ile Arg Asr. Gly Glu
                175
                                     170
                                                          175
Lys Met Ser Ile Asn Ala Glu Asp Val Val Val Gly Asp Leu Val Glu
                                                      1.90
            180
                                 185
Val Lys Gly Gly Asp Arg lle Pro Ala Asp Leu Arg Ile Ile Ser Ala
                                                  205
                             200
        195
Asn Gly Cys Lys Val Asp Asn Ser Ser Leu Thr Gly Glu Ser Glu Pro
                         215
                                              220
Gin Thr Arg Ser Fro Ask Phe Thr Ash Glu Ash Pro Leu Glu Thr Arg
                                                              240
                     230
                                         235
Ash Ile Ala Phe Fne Ser Thr Ash Cys Val Glu Gly Thr Ala Arg Gly
                                     250
                                                          255
                 245
Ile Val Val Tyr Thr Gly Asp Arg Thr Val Met Gly Arg Ile Ala Thr
                                 ..55
                                                      270
             260
 Leu Ala Ser Gly Leu Glu Gly Gly Gin Thr Pro Ilo Ala Glu Glu Ile
                             230
                                                  285
Glu His The Ile His Leu Ile Thr Gly Val Ala Val Phe Leu Gly Val
                         3.95
                                              300
 Ser Phe The Ile Leu Ser Leu Ile Leu Glu Tyr Thr Trp Leu Glu Ala
                                          315
                     310
 Val Ile Fhe Leu Ile Gly Ile Ile Mal Ala Asn Val Pro Glu Gly Leu
                                                          335
                                      330
Let Ala Thr Val Thr Val Dys Leu Thr Leu Thr Ala Lys Arg Met Ala
                                                      35:0
                                 345
             340
 Arg Lys Asn Cys Leu Val Lys Asn Leu Glu Ala Val Glu Thr Leu Gly
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		355					360					365			
	370	Ser				3 7	Asp				3 t. /		Thr		
206	Met				197					395			His		400
Asp				405					410					4.15	
			427					4.25					Arg 430		
		435					440					440	Ala		
	450					455					4 ()		Val		
46:					470					475			Val		450
				485					490				Lys	495	
			F.00					505					Ala 510		
		51.5					5 2 ()					525	Lys		
	5311					5:5					540		Tyr		
5.45					550					. 5 .			Leu		200
				5.65					570				Asp	5/5	
			580					585					Ser 590		
		5,95					-600					6.05	Cys		
	610					-615					670		Ile		
62=					630					- 635			Asn		1540
				645					6 = 0				Gln	りつこ	
			F F 0					- 665					Leu 670		
		675	1				- 680					りとう			
	69.)					- 695)				700				Gly
705					710					715					Asn 720 Tie
				7 - 5)				7:0)				130	
			740)				745)				100		Asp
		7.5.5	5				760)				/ 55)		Ile The
	77.	,				7.5	5				.36)			lle
78.9	·)				730)				1/ (4))				Leu 800 Mat
				8:05	5				310)				610	
Va]	l Pic	o Ala	a Ile 320		r Lei	ı Ala	а Туі	r 311 325	1 GIr	ı Alā	المد نا	, sei	830	, 116	. Met

Lys Arg Gln Pro Arg Asn Pro Lys Thr Asp Lys Leu Val Asn Glu Arg 840 335 $m L_{e}u$ Ile Ser Met Ala Tyr Sly Gln Ile Sly Met Ile Sln Ala Leu Gly 860 355 Gly Phe Phe Thr Tyr Phe Val Ile Leu Ala Glu Asn Gly Phe Leu Pro 375 870 File His Leu Leu Gly Ile Arg Glu Thr Trp Asp Asp Arg Trp Ile Asn 890 835 Asp Val Glu Asp Ser Tyr Gly Gln Gln Trp Thr Tyr Glu Gln Arg Lys 905 904 The Val Glu Phe Thr Cys His Thr Ara Phe Phe Val Ser Hie Val Val 925 9211 915 Val Gln Trp Ala Asp Leu Val Ile Cys Lys Thr Arg Arg Ash Ser Val 941) 935 File Gln Gln Gly Met Lys Asn Lys Ile Leu Ile Phe Gly Leu Phe Glu 95C 955 Gio Thr Ala Leo Ala Ala Phe Leo Ser Tyr Cys Fro Gly Met Gly Ala 970 965 Ala Leu Arg Met Tyr Pro Leu Lys Pro Thr Trp Trp Pne Cys Ala Phe 940 955 980 Fic Tyr Ser Leu Leu Ile Phe Val Tyr Asp Glu Val Arg Lys Leu Ile 1005 1000 lie Arg Arg Arg Pro Gly Gly Trp Val Glu Lys Glu Thr Tyr Tyr 1015 1020 +1100 3 ·211: 3636 . III. DHA .213 Fattus norvegicus -. 120% - 221% CDS + 322* (238)...(3309) $\pm 400 + 5$ agagectoge egggaggagg eggaeacitg deageggegg eggeagegge ageageageg 60 deggraguag eggeggeste ggteegggge geoggeegte etecetett eeteeggegg 120 cagooctage tocogoctot eggetected ggotecaste teccagoogg gagetgetet 180 otisitatite tagtotosag spacaggado oggogogggg deegcagege egodado atg 240 Met ogg ang ggg gtt gga cga gac ang tat gag see gea get gta tea gaa Gly Lys Gly Val Gly Arg Asp Lys Tyr Glu Pro Ala Ala Val Ser Glu cat gdg gac ang aag agc aag aag dog aag aag gaa agg gac atg gac His Gly Asp Lys Lys Ser Lys Lys Ala Lys Lys Glu Arg Asp Met Asp 20 gaa oto aag aag gaa gtg tot atg gac gac cat aaa oto ago otg gat 384 Blu Leu Lys Lys Glu Val Ser Met Asp Asp His Lys Leu Ser Leu Asp 35 gaa etc cat egt aaa tac gga aca gat ttg age ega gge eta aca eec 432 3lu Leu His Arg Lys Tyr Gly Thr Asp Leu Ser Arg Gly Leu Thr Fro 50

gca Ala	agg Arg	gcc Ala	gct Ala	gag Glu 7)	ātc Ile	atg Leu	gct Ala	caa Arg	gat Asp 75	ggc ggc	ccc Pro	aac Asn	gcc Ala	ctc Leu 5)	acg Thr	480
ccc Pro	odt Pro	ccc Pro	act Thr 35	act Tnr	aca Pro	gag Glu	tgg T:p	gtc Val 90	aaa Lys	tt: Phe	tgt Cys	cgg Arg	cag Gln 95	cig Lea	ttc Phe	528
ggt Gly	ggo Gly	tt:: Fh= 1::	toc Ser	atg Met	tta Leu	otg Leu	tgg Trp 105	att Ile	gja Gly	gcc Ala	att Ile	ctt Leu 110	tqt Cys	tto Pne	ttg Leu	576
get Ala	tat. Tyr 115	gifi Gly	atc Il€	cga Arg	agt Ser	got Ala 120	aca Thr	gaa Giu	gag Glu	gaa Glu	cca Pro 125	cca Pro	aat Aan	gat Asp	gat Asp	624
ctg Leu 130	tac Tyr	oto Leu	ggq Gly	gtc Val	gtg Val 135	otg Leju	tot Ser	get Ala	gt-c Val	gtc Val 140	atc Ile	ata Ile	act Thr	ggc Gly	tgt Cys 145	672
ttc Fhe	tca Ser	tat Tyr	tat Tyr	caa Gln 150	gaa Glu	gca Ala	aaa Lys	agc Ser	too Ser 155	aag Lys	atc Ile	atg Met	gaa Glu	tod Ser 160	tto Phe	720
aag Lys	aac Asn	atg Met	gtc Val 165	cct Fro	cag Gln	caa Gln	gcc Ala	ctc Leu 170	gtg Val	att Ile	cga Arg	aat Asn	gga Gly 175	gag Glu	aag Lys	76€
atg Met	ago Ser	atc Ile 190	aac Asn	gca Ala	gag Glu	gat Asp	gts Val 185	gto Val	gtt Val	gat Gly	gat Asp	ctg Leu 190	gtg Val	gag Glu	gtg Val	816
aag Lys	gac Gly 195	Giy	gac Asp	cga Ang	atc	cat Ero 200	gct Ala	gat Asp	ctc Leu	aga Arg	atc Ile 205	116	tot Ser	gca Ala	aat Asn	864
510 G1A G4c	Cys	aaq Lys	gtg Val	gat Asp	aac Asn 215	Ser	tca Ser	::tc Leu	act Thr	ggt Gly 220	Giu	tca Ser	gaa Glu	coc Pro	cag Gln 225	912
ast Thr	egg Arg	too Ser	dog Pro	qat Asp 230	Phe	aca Thr	aac Asn	qag Glu	aac Asn 135	Pro	ttg Leu	rgag Glu	aca Thr	agg Arg 240	aac Asn	960
att Ile	gcc Ala	tto Phe	tto Phe 245	: Ser	acc Thr	aad Asr	: tgt : Cys	gtt Val 250	GL U	gga Gly	act Thi	gca Ala	ogt Arg 255	1917	atc Tle	1008
gtt Val	gto Val	tad Tys 196	: Thi	: 339 : Gly	gat Asp	. cga : Arq	265	Val	r atg . Met	gg(aqq Arq	g ato g Ile 270	HI3	abo The	ctt Leu	1056
got Ala	tat a Ser 275	: Gl;	g cto / Let	g gaa i Glu	i ggo i Gly	gg: Gl; 28	/ Let	g acc i Thr	0 000 0 Pro	at.	gc* Ala 233	g (PT)	a gaa a Glu	a ato i Ile	gag e Glu	1104
cac His 290	s Phe	at:	c ca: e Hi:	s sto	at: 1 Ile 295	Th:	g ggt c 3ly	gto y Val	g gco L Ala	gt. a Va. 30.	L Ph	e Lei	r Gl7 3 336	g gt: y Val	y tot L Ser 305	1152

ttc Phe	ttc Phe	att Ile	ctc Leu	tot Ser 310	ctg Leu	atc Ile	ctt Leu	gag Glu	tac Tyr 315	acc Thr	tgg Trp	ctc Leu	GIU	gct Ala 320	gto Val	1200
atc Ile	ttc Phe	ctc Leu	att Ile 325	gjt Gly	atc Ile	atc Ile	gta Val	gcc Ala 330	aac Asn	gtg Val	oog Pro	gaa Glu	ggt Gly 335	t t.g Leu	ctg Leu	1243
gcc Ala	acc Thr	gt.c Val 340	acg Thr	gta Val	tgt Cys	cty Leu	acg Thr 345	cto Leu	act Thr	gcc Ala	aag Lys	aga Arg 350	atg Met	geg Ala	agg Arg	1235
aag Lys	aac Asn 355	tigo Cys	ctg Leu	gtg Val	aag Lys	aac Asn 360	ctg Leu	gaa Glu	get Ala	gtg Val	gag Glu 365	acc Thr	ttg Leu	Gly ggg	to: Ser	1344
aca Thr 370	toc Ser	add Thr	atc Ile	tgc Cys	toc Ser 3/5	gac Asp	aag Lys	act Thr	gga Gly	act Thr 330	ct.q Leu	act Thr	cag Gln	aac Asn	cgg Arg 385	139.
atg Met	aca Thr	gug Val	get Ala	cac His 390	aug Met	tgg Trp	ttt Phe	gac Asp	aat Asn 395	caa Gln	atd Ile	cat His	gaa Glu	gct Ala 400	gac Asp	1440
acc Thr	aca Thr	gag Glu	aat Asn 405	cag Gln	agt Ser	ggą Gly	gtc Val	too Ser 410	ttt Phe	gac Asp	aag Lys	acg Thr	tica Ser 415	gee Ala	acc Thr	1488
tgg Trp	ttc Fhe	got Ala 420	ctg Leu	too Ser	aga Arg	att Ile	gct Ala 425	ggt Gly	ctc Leu	tgt Cys	aac Asn	agg Arg 430	gca Ala	gtg Val	ttt Fl.e	1536
cag Gin	gct Ala 435	aad Asn	caa Gln	gaa Glu	aac Asn	ctg Leu 440	cct Frc	ātc Ile	ctt Leu	aag Lys	ogt Arg 445	gca Ala	gta Val	gcg Ala	gga Gly	1584
gat Asp 450	F.la	too Ser	gag Glu	tcg Ser	gog Ala 455	ata Leu	tta Leu	aag Lys	tgc Cys	atc Ile 460	Glu	gtc Val	tgc Cys	tgt Cys	ggc Gly 465	1632
tcc Ser	gtg Val	atg Met	gag Glu	atg Met 470	Arg	gag Glu	aag Lys	tac Tyr	acc Thr 475	Lys	ata Ile	gt.g Val	gag Glu	att Ile 480	occ Pro	1680
ttc Phe	aac Asn	too Ser	acc Thr 485	Asn	aag Lys	ta: T;r	cag Gln	cto Leu 430	Ser	att Tie	cac His	aag Lys	aac Asn 495	FLU	aac Asn	1728
gca Ala	. tog . Ser	gaag Glu	Pro	i aag Dys	rcac His	ctç Lei	cta Leu 505	ı Val	g atq Met	raaş Lys	g ggo s Gly	gcc Ala 510	Pro	gaa Glu	agg i Arg	1776
ato Ile	c ctg Leu 515	ı Asp	o loga o Arg	a tigo g Cys	agt Ser	tat Sei 520	: Ile	cto Lei	cto Lei	cad His	9 990 5 915 525	л гус	g gag s Glu	g cag n Glr	g ccc n Pro	1814
ctç Lev	g gad 1 Asp	gas Slu	a gaş ı Glü	g cto i Lei	g aag i Lys	gad Asp	c gcc o Ala	ttt a Phe	i caq e Glr	g aat n Asr	goo n Ala	tac a Tyr	o ota o Lei	a gaq ı Gli	g ctg ı Leu	1872

530					535					540					545	
ggg Gly	ggc Gly	ctt Leu	gga Gly	gag Glu 550	cat Arg	gtg Val	cta Leu	ggt Gly	ttc Phe 555	tga Cys	cac His	ctc Leu	ctt Leu	ctg Leu 560	cct Pro	1920
gac Asp	gaa Glu	cag Gln	ttt Phe 565	ccc Pro	gaa Glu	giy gad	ttc Phe	cag Gln 570	ttt Phe	gac Asp	act Thr	gat Asp	gaa Glu 575	gtc Val	aat. Asri	1 168
tito Phe	ccc Pro	gtg Val 53)	gat Asp	aad Asn	oto Leu	tgo Cys	tto Phe 535	gtg Val	ggt Gly	ctt Leu	atc Ile	tod Ser 590	atg Met	att Ile		2 10
oct Pro	cct Pro 595	oga Arg	get Ala	got Ala	gto Val	201 Pro 600	gat Asp	gct Ala	gtg Val	gg:	aaa Lys 605	tạc Cys	ege Arg	agc Ser	-/	2464
999 Gly 610	att Ile	aag Lys	gtc Val	at: Ile	atg Met 615	ątu Val	aca Thr	gga Gly	gac Asp	cat His 620	cca Pro	atc Ile	aca Thr	gcc Ala	aaa Lys 625	2:12
gcc Ala	att Ile	gct Ala	aag Lys	999 Gly 630	gtg Val	ggs 31y	att Ile	atc Ile	tca Ser 635	gaa Glu	ggt Gly	aac Asn	gag Glu	acc Thr 640		: 160
gaa Glu	gac Asp	att Ile	gct Ala 645	gcc Ala	ogc Arg	ctc Leu	aac Asn	att Ile 650	cca Pro	gtg Val	aac Asn	cag Gln	gtg Val 655	aac Asn	ccc Pro	1208
aga Arg	gat Asp	gcc Ala 660	Lys	gcc Ala	tgt Cys	gta Vai	gta Val 665	His	gly ggc	agt Ser	gac Asp	ttg Leu 670	aag Lys	gac Asp	atg Met	2256
acc Thr	tot Ser 675	Glu	gag Glu	ctg Leu	gat Asp	gac Asp £80	He	ttg Leu	agg Arg	tac Tyr	cac His 685	acg Thr	gag Glu	att Ile	-,	.304
ttt Phe 690	Ala	agg	acc Thr	tct Ser	ost Pro 695	Gln	cag Gln	aag Lys	ctc Leu	atc 11e 700	110	gtg Val	gag Glu	ggc Gly	tgc Cys 705	2352
cag Gln	egg Arg	cag Gln	ggt Gly	gcc Ala 710	He	gtg Val	got Ala	gtc Val	aca Thr 715	GLY	gat Asp	ggt Gly	gtc Val	aat Asn 720	gac Asp	. 400
tot Ser	cca Pro	got Ala	ttg Let 725	Lys	aag Lys	a Ala	ı gat ı Asp	att : Ile 730	GL7	gtt Val	gec Ala	atg Met	399 Gly 735	, TTE	gtt Val	2448
ggc Gly	tog Ser	gat Asp 740	o Val	ser Ser	aaq Lys	g daa s Gir	a get n Ala 745	i Ala	t gad a Asp	atg Met	gatt : Ile	ctt Leu 750	теч	gat 1 Asp	gac Asp	.4.6
aac Asr	ttt Ehe 755	e Ala	d too a Sei	ato file	gtç Val	g act L Thi 750	s Gly	a gta 7 Val	a gas L Gli	ı gaa ı Glu	a g _ʻ yt a Gly 765	/ Arg	cto Lei	g ata ı Ile	a tit e Phe	544
gat	aac	c ttq	g aaq	g aaa	a to	c ati	t get	t tad	c acc	c sta	a aca	a agt	. aac	c att	i deg	2592

Asp 770	Asn	Leu	Lys	Lys	Ser 975	Ile	Ala	Tyr	Thr	Leu 780	Thr	Ser	Asn	Ile	Pro 785	
gaa Glu	atc Ile	acc Thr	ccc Pro	ttc Phe 791	t.tg Leu	ata Ile	ttt Phe	Ile	att Ile 795	gca Ala	aac Asn	att Ile	cca Pro	otg Leu 800	ccc Pro	2640
atg Leu	gga Gly	acc Thr	gtg Val 805	ac: Th:	atc Ile	cto Leu	tge Cys	att Ile 310	gac qsA	ttg Leu	ggc Gly	act Thr	gac Asp 815	atg Met	gtt Val	2688
ccc Prc	go: Ala	atc Ile 820	tot Ser	ctg Le.i	gcc Ala	tat Tyr	gaa Glu 825	cag Gln	got Ala	gaa Glu	agt Ser	gac Asp 830	ato Ile	atg Met	aag Lys	: 736
agq Arq	cag Gln 335	ccc Pro	aga Arg	aat Asn	ddd Pro	aaa Lys 840	acy Th::	gac Asp	aaa Lys	ctt Leu	gtg Val 845	áar: Asn	gag Glu	ogt Arg		.784
atc Ile 850	ago Ser	atg Met	gcc Ala	tat Tyr	gga Gly 855	cag Gln	atc Ile	ggt Gly	atg Met	atc Ile 860	cag Gln	gcc Ala	ctg Leu	gga Gly	ggc Gly 865	.:832
ttc Phe	tto Phe	act Thr	tat Tyr	ttt Phe 870	gtg Val	att Ile	ct j Le i	gct Ala	gag Glu 875	aac Asn	ggt Gly	ttc Phe	ctg Leu	ccc Fro 880	ttt Phe	2860
cac His	ctg Leu	ttg Leu	gac Gly 835	atc Ile	cga Arg	gag Glu	acc Thr	tgg Trp 890	gat Asp	gac Asp	cgc Arg	tgg Trp	att Ile 895	aat Asn	gat Asp	2928
gtg Val	gag Glu	gac Asp 900	aqc Ser	tac Tyr	ejā aga	cag Gln	cag Gln 905	tag Tıp	acc Thr	tac Tyr	gag Glu	cag Gln 910	agg Arg	aag Lys	att Ile	2976
gtg Val	gaq Glu 915	Phe	acc Thr	tgc Cys	cac His	acg Thr 920	Ala	ttc Phe	ttt Phe	gtc Val	agt Ser 925	11e	gtg Val	gta Väl	gtg Val	30.14
cag Gln 930	Trp	gct Ala	qac Asp	ttg Leu	gtc Val 935	atc Ile	tgc Cys	aag Lys	Thr	aga Arg 940	Arq	Asn	Ser	val	ttc Phe 945	3072
cag Gln	cag Gln	gga Gly	atg Met	aag Lys 950	Asn	aag Lys	atc Ile	tta Leu	ata Ile 955	Phe	gge Gly	ctc Leu	ttt Fhe	gaa Glu 960	gag Glu	3120
aca Thr	got Ala	ont Lev	got Ala 965	Ala	ttc Phe	otg Lev	j too 1 Ser	tac Tyr 970	Сув	cot Pro	ggg Gly	ratg Med	ggt Gly 975	Alc	gee Ala	3158
att Leu	ayg ı Arg	y atg y Met 930	: Туг	coc Pro	cto Leu	aaa Lys	n dat S Pro BPS	Thr	tgg Trp	g tigg o Trp	tto Phe	tat Cys 990	A La	tto Phe	c ccc e Pro	3216
tac Tyr	tio Sei	: Let	t ato Lei	ato Ile	tto Phe	gtç Val	l Tyr	gac Asp	gaç Gli	g gtç ı Val	g cgg Arg 100	a PAs	g cto s Lev	ato 1 Ile	e atc	3264

agg ega ege est gge gge tgg gtg gag aag gaa ace tae tae tag Arg Arg Arg Pro Gly Gly Trp Val Glu Lys Glu Thr Tyr Tyr * 1015 edetetjede tgetegeegt ggaadattgt gedadadadt geadetades etacedeese 3369 tit jtgtadt toakgtottg gagotoggaa dictaccotg glaggaaago accasagost 3429 gtgjggatos aga gtostg gaatgaagsa tgtagstgta atgggggggg gggggagggc 3489 tucogaaaa acacogtgga oggggacgac ageggggaag gtttatatgt gc:tttttgt 3549 thtegtaaaa aagjaaaaco tggaaagact gaaagattac gttttatato tggattttta 3609 chaatamaga tgg:tattat macggaa <2100-4 <.211: 1023 +2123 FET +213 - Fattus mirvegious -.400 - 4 Met 317 Lys Gly Val Gly Arg Asp Lys Tyr Glu Prc Ala Ala Val Ser 1.) Gid His Gly Asp Lys Lys Ser Lys Lys Ala Lys Lys Glu Arg Asp Met 3:0 2: Asp Glu Leu Lys Lys Glu Val Ser Met Asp Asp His Lys Leu Ser Leu 45. 40 Asp Glo Leu His Aig Lys Tyr Gly Tir Asp Leu Ser Arg Gly Leu Thr Pro Ala Ang Ala Ala Glu Ile Leu Ala Ang Asp Gly Pro Asn Ala Leu 75 70 Thr Pro Pro Pro Thr Thr Pro Glu Trp Val Lys Phe Cys Arg Gln Leu The Gly Gly Pho Ser Met Leu Leu Trp Ile Gly Ala Ile Leu Cys Phe 105 110 leu Ala Tyr Gly Ile Arj Ser Ala Thr Glu Glu Glu Pro Pro Asn Asp 125 120 Asp Leu Tyr Leu Gly Val Val Leu Ser Ala Val Val Ile Ile Thr Gly 135 Cys Phe Ser Tyr Tyr Gin Glu Ala Lys Ser Ser Lys Ile Met Glu Ser 155 150 145 Fhe Lys Asn Met Val Fro Gln Gln Ala Leu Val Ile Arg Asn Gly Glu 175 170 165 Lys Met Ser Ile Asn Ala Glu Asp Val Val Gly Asp Leu Val Glu 190 165 1 - 0Lys Gly Gly Asp Arg Ile Fro Ala Asp Leu Ara Ile Ile Ser Ala 205 200 195 Ash Gly Cys Lys Val Ask Ash Ser Ser Leu Thr Gly Glu Ser Glu Pro 225 .:15 210 Gln Thr Arg Ser Pro Asp Fhe Thr Ash Glu Ash Pro Leu Glu Thr Arg 235 240 2.30 1.15 Ash Ile Ala Phe Phe Ser Thr Ash Cys Val Glu Gly Thr Ala Arg Gly 250 255 245 Val Tyr Thr Gly Asp Arg Thr Val Met Gly Arg Ile Ala Thr 200 265 Leu Ala Ser Gly Leu Glu Gly Gly Leu Thr Fro Ile Ala Glu Glu Ile 285 280 275 Blu His Fhe Ile His leu Ile Thr Gly Val Ala Val Phe Leu Gly Val 300 295 Ser Phe Phe Ile Leu Ser Leu Ile Leu Glu Tyr Thr Trp Leu Glu Ala 315 : 10 Val Ile Phe Lou Ile Gly Ile Ile Val Ala Asn Val Pro Glu Gly Leu 330 325

3309

Leu Ala Thr Val Thr Val Cys Leu Thr Leu Thr Ala Lys Arg Met Ala 345 Arg Lys Asn Cys Leu Val Lys Asn Leu Glu Ala Val Glu Thr Leu Gly 360 Ser Thr Ser Thr Ile Cys Ser Asp Lys Thr Gly Thr Leu Thr Gln Asn 380 375 Ard Met Thr Val Ala His Met Trp Phe Ask Ash Gin Ile His Glu Ala 3 +5 390 Asp Thr Thr Glu Ash Gln Ser Gly Val Ser Fne Asp Lys Thr Ser Ala 41(405 The Tep Phe Ala Leu Ser Arg Ile Ala Gly Leu Cys Ash Arg Ala Val 430 4.35 Pho Gir. Ala Ash Gln Glu Ash Leu Pro Ile Leu Lys Ard Ala Val Ala 4.15 440 Gly Asp Ala Ser Glu Ser Ala Leu Leu Lys Cys Ite Glu Val Cys Cys 455 Gly Ser Val Met Glu Met Arg Glu Lys Tyr Thr Lys Ile Val Glu Ile 475 470 Pro Phe Ash Ser Thr Ash Lys Tyr Gln Leu Ser Ile His Lys Ash Pro 4.30Ash Ala Ser Glu Pro Lys His Leu Leu Val Met Lys Gly Ala Fro Glu 505 Arg Ile Leu Asp Arg Cys Ser Ser Ile Leu Leu His Gly Lys Glu Gln 5.20 515 Fro Leu Asp Glu Glu Leu Lys Asp Ala Phe Gln Asn Ala Tyr Leu Giu 540 535 Lea Gly Gly Leu Gly Glu Arg Val Leu Gly Fhe Cys His Leu Leu 5.5.5 550 Pro Asp Glu Gln Phe Pro Glu Gly Fhe Gln Fhe Asp Thr Asp Glu Val 575 57:) 565 Asn Phe Pro Val Asp Asn Leu Cys Phe Val Gly Leu Ile Ser Met Ile 5:40 5.85 5.80 Asp Fro Pro Arg Ala Ala Val Fro Asp Ala Val Gly Lys Cys Arg Ser 600 595 Ala Gly Ile Lys Val Ile Met Val Thr Gly Asp His Fro Ile Thr Ala 620 615 61.0Lys Ala Ile Ala Lys Gly Val Cly Ile Ile Ser Glu Gly Asn Glu Thr 435 630 Val Glu Asp Ile Ala Ala Arg Leu Asn Ile Pro Val Asn Gin Val Asn 6.50 545 Pro Arg Asp Ala Lys Ala Cys Val Val His Gly Ser Asp Leu Lys Asp 565 560 Met Thr Ser Glu Glu Leu Asp Asp Ile Leu Arg Tyr His Thr Glu Ile 685 $\epsilon_i \in (0$ 675 Val Phe Ala Arg Thr Ser Pro Gln Gln Lys Leu Ile Ile Val Glu Gly 700 €95 15 (11) Cys Gln Arg Gln Gly Ala Ile Val Ala Val Thr Gly Asp Gly Val Asn 715 710 Asp Ser Pro Ala Leu Lys Lys Ala Asp Ile Gly Val Ala Met Gly Ile 7:0 725 Val Gly Ser Asp Val Ser Lys Gln Ala Ala Asp Met Ile Leu Leu Asp 745 740 Asp Ash Phe Ala Ser Ile Val Thr Gly Yal Glu Glu Gly Arg Leu Ile 755 760 755 Fne Asp Asn Leu Lys Lys Ser Ile Ala Tyr Thr Leu Thr Ser Asn Ile 780 775 Fro Glu Ile Thr Pro Phe Leu Ile Phe Ile Ile Ala Asn Ile Pro Leu 795 790 Pro Leu Gly Thr Val Thr Ile Leu Cys Ile Asp Leu Gly Thr Asp Met

810 805 Val Pro Ala Ile Ser Leu Ala Tyr Glu Gln Ala Glu Ser Asp Ile Met 825 820 Lys Arg Gln Pro Arg Asn Pro Lys Thr Asp Lys Leu Val Asn Glu Arg 335 840 Leu Ile Ser Met Ala Tyr Gly Gln Ile Gly Met Ile Gln Ala Leu Gly 855 Gly Phe Phe Thr Tyr Phe Val Ile Leu Ala Glu Asn 3ly Phe Leu Pro 375 865 870 Phe His Leu Leu Gly Ile Arg Glu Thr Trp Asp Asp Arg Trp Ile Asr. 890 895 885 Asp Val Glu Asp Ser Tyr Gly Gln Gln Trp Thr Tyr Glu Gln Arg Lys 905 900 Ile Val Glu Phe Thr Cys His Thr Ala Phe Phe Val Ser Ile Val Val 925 915 920 Val Gln Trp Ala Asp Leu Val Ile Cys Lys Thr Arg Arg Asn Ser Val 940 930 935 Phe Gin Gln Gly Met Lys Asn Lys Ile Leu Ile Phe Gly Leu Phe Glu 955 945 950 Glu Thr Ala Leu Ala Ala Phe Leu Ser Tyr Cys Pro Gly Met Gly Ala 970 975 965 Ala Leu Arg Met Tyr Pro Leu Lys Pro Thr Trp Trp Phe Cys Ala Phe 990 930 935 Pro Tyr Ser Leu Leu Ile Phe Val Tyr Asp Glu Val Arg Lys Leu Ile 1005 995 1000 Ile Arg Arg Pro Gly 3ly Trp Val Glu Lys Glu Thr Tyr Tyr 1020 1010 1015